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EC81-102 Nebraska Spring Small Grain Variety Tests 1981

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NOVEMBER 1981 NEBRASKA COOPERATIVE EXTENSION SERVICE–E.C. 81-102

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NEBRASKA SPRING SMALL GRAIN VARIETY TESTS 1981

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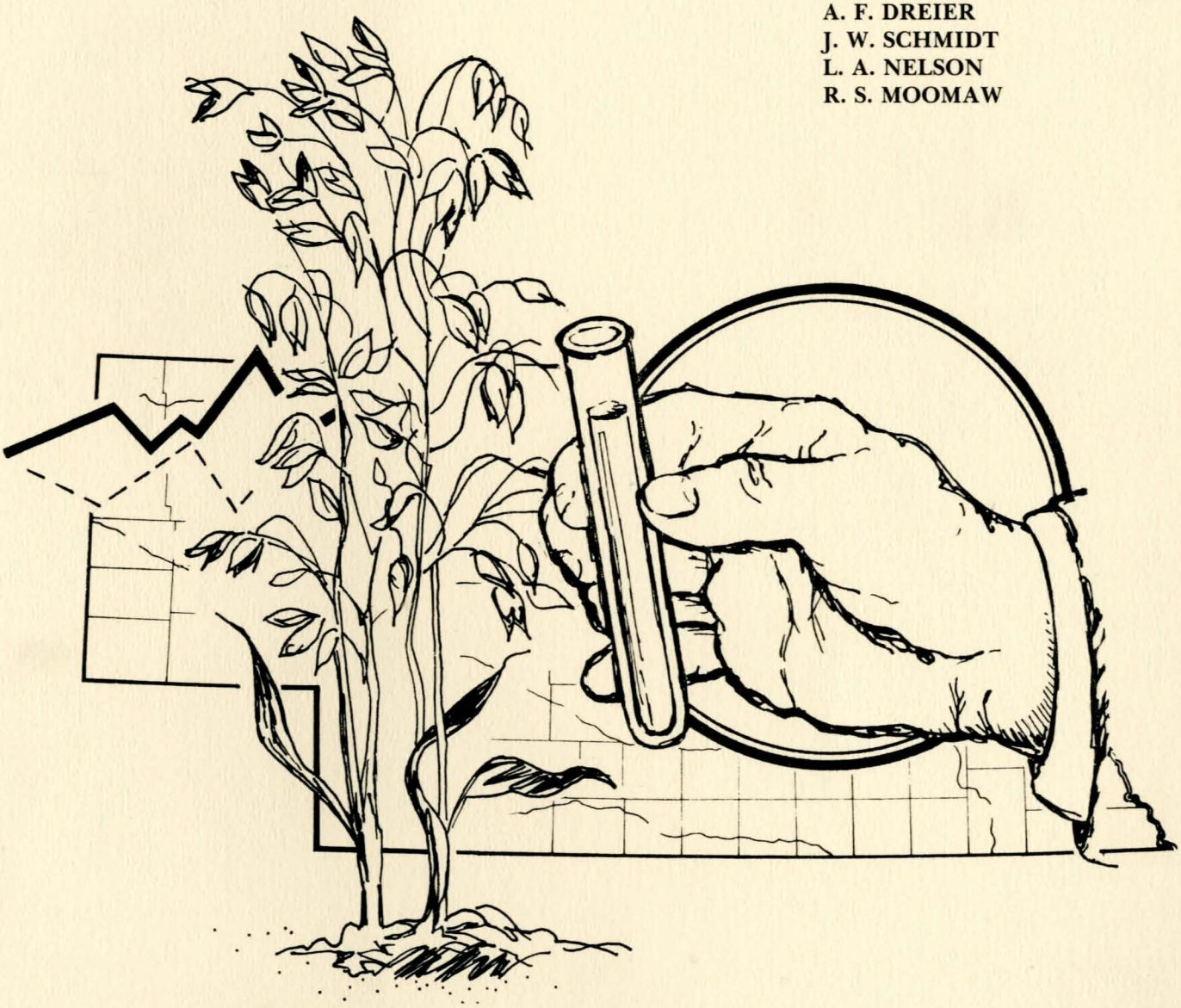

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EXTENSION CIRCULAR 81-102

November 1981

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FOREWORD

This circular is a progress report of small grain variety tests conducted by the Agricultural Experiment Station. Trials were conducted by personnel of the Agronomy Department and the Northeast Nebraska and Panhandle Stations and the High Plains and Northwest Agricultural Laboratories. Conduct of experiments and publication of results is a joint effort of the Agricultural Experiment Station and the Cooperative Extension Service. Special acknowledgement is made to farmer cooperators who furnished land for experiments; also to County Agents and others who assisted in the conduct of these tests. Entrants of privately developed strains paid a fee to cover a portion of the cost of testing their product.

THE METRIC SYSTEM

Among the more common equivalents used are:

0° Celsius	=	32° Fahrenheit
1 millimeter (mm)	=	0.0394 inches
1 centimeter (cm)	=	0.394 inches
1 hectare (ha)	=	2.471 acres
1 kilogram (kg)	=	2.205 pounds
1 hectoliter (hl)	=	2.838 bushels
1 metric ton (t)	=	2,204.6 pounds

Conversion factors are as follows:

cm	=	inches x 2.54
ha	=	acres x 0.405
kg/ha	=	bu/A x 35.87 oats (32 lb/bu)
	=	bu/A x 53.81 barley (48 lb/bu)
	=	bu/A x 67.26 wheat (60 lb/bu)
	=	lb/A x 1.12
kg/hl	=	lb/bu x 1.287
t/ha	=	cwt/A x 0.1121

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NEBRASKA SPRING SMALL GRAIN VARIETY TESTS

OATS-BARLEY-SPRING WHEAT

1981

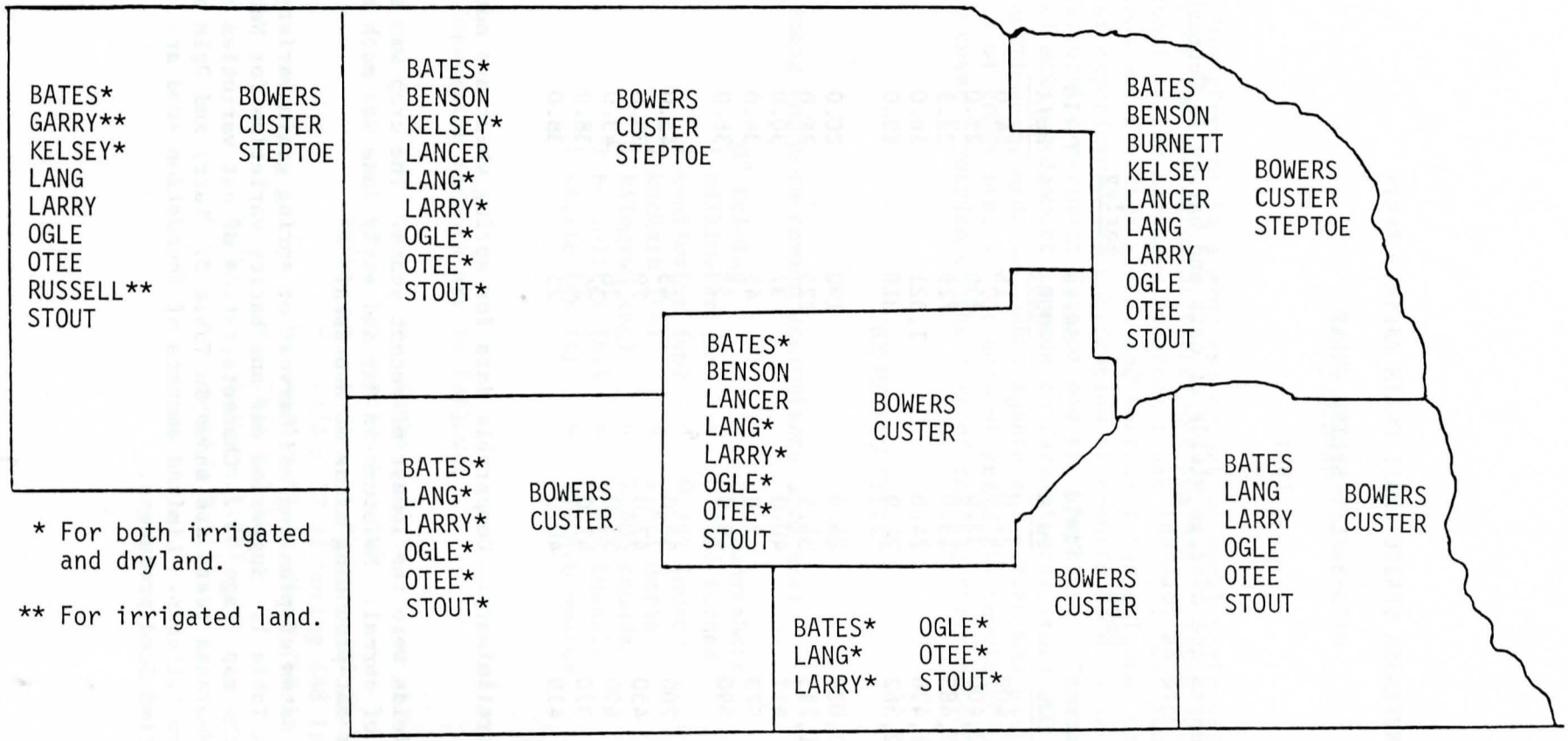
Harvested acreages and average yields of oats and barley in Nebraska for selected years were as follows:

	Oats		Barley	
Year	Acres 000	Yield bu/A	Acres 000	Yield bu/A
1910	2,400	27.0	118	14.0
1920	2,400	33.0	256	25.0
1930	2,485	29.0	726	25.5
1940	1,426	24.0	1,321	16.0
1950	2,562	24.0	310	15.0
1955	2,029	26.0	190	20.0
1960	1,213	35.5	225	29.0
1965	617	40.0	37	30.0
1970	573	42.0	45	36.0
1975	590	49.0	33	36.0
1977	700	58.0	43	45.0
1978	450	47.0	29	38.0
1979	400	53.0	28	43.0
1980	370	41.0	25	38.0
1981	410	40.0	25	38.0

The 1981 data are preliminary. Comparable data for spring wheat are not available.

The 1980-81 yields were the lowest of recent years. The crop was seeded considerably ahead of normal. Moisture in May and early June was much below normal in the major oat-producing areas of Nebraska.

Locations and dates of planting and harvest of spring grain variety trials are shown in Table 1. Suggested oat and barley varieties for Nebraska are shown on the map (Page) . Characteristics of oat varieties included in current Nebraska tests are shown in Table 2. Larry and Ogle are recent releases from Illinois. Limited amounts of Foundation seed are available to Certified Seed producers.



* For both irrigated and dryland.

** For irrigated land.

SUGGESTED OAT AND BARLEY VARIETIES FOR NEBRASKA

1982

Table 1. Locations and dates of planting and harvest. Spring small grain variety tests. 1981.

County	Cooperator	Planted	Harvested
	Oats		
Saunders	Mead Field Laboratory	March 20	July 16
Dixon	Northeast Station	March 26	1/
Cedar	Charles Foxhoven, Obert	March 26	July 8
Cheyenne	High Plains Ag. Lab.	April 2	July 28
Scotts Bluff (irr)	Panhandle Station	April 6	1/
Box Butte (irr)	Northwest Ag. Laboratory	April 6	July 23
	Barley		
Saunders	Mead Field Laboratory	March 20	2/
Dixon	Northeast Station	March 26	1/
Cheyenne	High Plains Ag. Lab.	April 2	July 28
Scotts Bluff (irr)	Panhandle Station	April 6	1/
Box Butte (irr)	Northwest Ag. Laboratory	April 6	July 23
	Spring Wheat		
Saunders	Mead Field Laboratory	March 20	July 20
Dixon	Northeast Station	March 26	1/
Cheyenne	High Plains Ag. Lab.	April 2	July 28
Scotts Bluff (irr)	Panhandle Station	April 6	1/
Box Butte (irr)	Northwest Ag. Laboratory	April 6	July 23

1/ Plot damaged by hail. No data reported.
2/ Drouth and chinch bug damage. No data

Larry was selected from the cross Tyler x Egdolon 2x Orbit. It is a high yielding early maturing variety with good resistance to barley yellow dwarf. It is similar to Lang with equal or better lodging resistance, slightly higher test weight and a more attractive kernel.

Ogle resulted from a cross of Brave 2x Tyler x Egdolon 23 made at the University of Illinois. It is a high yielding medium maturing variety with excellent resistance to barley yellow dwarf. It is slightly taller and several days later than Lang. Kernels appear similar to Lang. It has an excellent record under irrigation in Nebraska.

Oat data for the Southeast, Northeast and West (irrigated and nonirrigated) Cropping Districts are shown in Tables 3 through 10. Barley data are summarized in Tables 11 through 14. Spring wheat data are included in Tables 15 through 18.

The 1981 data are shown along with period-of-years performance. This provides information about variety reaction to differing conditions. The performance of varieties cannot be measured with absolute accuracy because of variations in soil and other conditions with the test area. Unless varieties differ in yield or other characters by more than the difference required for significance shown in the tables, little confidence can be placed in the superiority of one over the other. These differences are calculated at the 5% level of probability. Differences this great would be expected through chance alone in 1 of 20 trials.

Table 2. Characteristics of oat varieties in recent Nebraska tests.

Variety	Maturity	Relative		
		Straw strength	Bushel weight	Height
Bates	Early	Strong	High	Short
Benson	Med-late	Medium	Medium	Tall
Burnett	Medium	Medium	Medium	Medium
Colorado 37	Late	Weak	Medium	Tall
Garry	Late	Strong	Medium	Tall
Kelsey	Med-late	Medium	Medium	Tall
Kherson	Late	Weak	Low	Medium
Lancer	Medium	Medium	High	Medium
Lang	Early	Strong	Medium	Short
Larry	Early	Strong	High	Short
Lodi	Late	Medium	Medium	Tall
Lyon	Medium	Strong	Medium	Tall
Ogle	Med-early	Strong	Medium	Short
Otee	Early	Strong	High	Short
Russell	Late	Medium	Medium	Tall
Stout	Early	Strong	High	Short
Trio	Early	Medium	High	Medium
Wright	Medium	Strong	High	Tall

Oats

Southeast District data from the Mead Field Laboratory are shown in Table 3. The trial was planted early. Drouth and chinch bug damage kept yields below 50 bushels. Lang and Larry were highest in yield in 1981. Yields for the 1975-1981 period are shown in Table 4. Varietal performance was not consistent over years.

Two trials were planted in the Northeast District. Hail damaged the Dixon County Trial in late June. Good yields were produced in Cedar County (Table 5) when the lack of adequate moisture is considered. Larry, Lang, Ogle and Bates were highest in Yield in 1981. All are relatively early in maturity. Many varieties had equivalent yields for the 1978-1981 period (Table 6).

Moisture conditions were favorable and high yields were produced in the West District nonirrigated trial (Table 7). Ogle, Bates and Lang had average yields in excess of 100 bushels per acre. Varietal performance over years has been inconsistent in this area (Table 8).

The irrigated trial at the Panhandle Station in Scotts Bluff County was badly damaged by hail and no data are reported. Good yields were produced in Box Butte County (Table 9). Both late and early varieties were in the high-yield group. Kelsey, Garry and Russell were high in four-year average yields (Table 10).

Barley

The barley strains, Onda, Exp. HV #9 and HV #14 were entered by the Wilber Ellis Company, Seed Division, E12001 Empire Way, Spokane, Washington 99206. Questions about these entries should be addressed to that location.

Barley trials were planted adjacent to oats. Relative production of oats and barley on a grain weight per unit area was as follows:

Location	Barley % of Oats						
	1975	1976	1977	1978	1979	1980	1981
Saunders	78	86	147	102	89	95	---
Dixon	112	76	85	117	134	117	---
Cheyenne	113	77	114	91	107	121	73
Box Butte	149	---	---	---	---	---	---
Sheridan	---	94	---	---	---	---	---
Scotts Bluff (irr)	156	128	99	89	95	141	---
Box Butte (irr)	---	---	108	---	136	112	127
Dawes (irr)	---	---	---	86	---	---	---

These data are based on the average yield of all varieties included in that test. They emphasize that relative performance of these two crops varies greatly with seasonal environmental conditions.

Drouth and chinch bug damage destroyed the Southeast District trial. The Northeast District trial was badly damaged by hail. Yield data from Southeast and Northeast trials for the period 1972-1980 are shown in Tables 11 and 12. For the four varieties tested, there were no significant differences in four-year average yields.

Custer and Steptoe were highest in yield in the West District nonirrigated test in Cheyenne County (Table 13). These two varieties also were highest in 1977-1981 average yields in this area.

Hail destroyed the Scotts Bluff County irrigated barley trial. Excellent yields were produced in Box Butte County under sprinkler irrigation (Table 14). Steptoe was highest in 1981 and four-year average yields.

Spring Wheat

Spring wheat yield and other data for the 1975-1981 period are shown in Tables 15 through 18. Yields were low in Saunders County (Southeast District). No 1981 data were obtained from the Northeast District because of hail. West District nonirrigated yields were low in comparison to the excellent oats and barley yields from that location. In the West irrigated trial, yields were high and many varieties had equivalent yield records.

Table 3. Southeast District oat variety test. Saunders County. 1981.

Variety	Flower June	Lodging %	Yield bu/A	Weight lb/bu
Bates	2	5	38	32.4
Benson	4	10	27	30.3
Burnett	2	80	34	27.3
Garry	6	20	26	29.2
Kelsey	5	60	27	32.3
Kherson	4	40	25	25.9
Lancer	3	5	32	31.3
Lang	2	T	45	30.9
Larry	2	1	48	32.5
Ogle	3	T	39	27.9
Otee	3	5	30	32.9
Russell	6	20	21	29.8
Stout	3	1	27	29.5
Exp. 0-9	2	30	25	31.2
Exp. 0-10	3	10	38	32.3
Dif. req. sig.	0.9	--	8.0	----

T = Trace.

Table 4. Southeast District oat variety tests. 1975-1981.

Variety	Grain yield bu/A								Weight lb/bu
	1975	1976	1977	1978	1979	1980	1981	1978-81 average	1978-81 average
Bates	70	89	48	43	26	85	38	48	29.8
Benson	--	--	36	32	24	77	27	40	28.0
Burnett	63	71	43	43	20	73	34	43	27.2
Garry	64	48	33	29	24	91	26	43	25.9
Kelsey	71	55	51	47	18	91	27	46	29.4
Kherson	57	56	38	29	22	81	25	39	26.5
Lancer	--	--	--	44	25	86	32	47	29.8
Lang	44	83	49	61	16	72	45	49	27.0
Larry	--	--	--	--	--	78	48	--	----
Lyon	--	40	43	40	16	--	--	--	----
Ogle	--	--	--	--	--	68	39	--	----
Otee	53	75	44	41	22	82	30	44	29.8
Russell	66	60	45	40	24	74	21	40	28.7
Stout	62	79	44	43	10	55	27	34	26.9
Trio	55	52	46	42	18	--	--	--	----
Wright	60	74	34	42	19	--	--	--	----
Exp. 0-9	--	--	--	--	--	76	25	--	----
Exp. 0-10	--	--	--	--	--	74	38	--	----
Dif. req. sig.	11.3	14.9	11.6	10.9	6.8	11.7	8.0	N.S.	2.3

Tests on Mead Field Laboratory, Saunders County.

Table 5. Northeast District oat variety test. Cedar County. 1981.

Variety	Flower June 1/	Height inches	Yield bu/A	Grain Weight lb/bu	Protein %	Straw yield cwt/A
Bates	4	23	52	34.6	15.1	16.5
Benson	6	24	36	33.7	15.7	16.1
Burnett	4	23	49	32.0	15.7	18.6
Kelsey	9	24	35	35.7	14.1	18.7
Kherson	9	25	37	29.0	16.1	23.1
Lancer	5	23	44	35.4	15.8	17.7
Lang	2	23	55	31.7	16.6	18.3
Larry	2	20	61	34.0	14.9	18.4
Ogle	3	23	54	30.3	14.9	16.4
Otee	6	22	48	35.3	14.4	18.0
Stout	4	21	36	34.6	15.2	14.2
Exp. 0-9	4	22	41	34.6	15.0	14.9
Dif. req. sig.	0.4	2.0	10.7	----	1.4	3.4

1/ Data from Dixon County.

Table 6. Northeast District oat variety tests. 1976-1981.

Variety	Grain yield bu/A							Weight lb/bu	
	1976	1977	1978	1979	1980	1981	1978-81 average	1981	1978-81 average
Bates	28	73	56	95	115	52	80	34.6	32.7
Benson	--	65	52	104	107	36	75	33.7	32.1
Burnett	25	65	48	94	112	49	76	32.0	30.8
Kelsey	20	77	48	108	108	35	75	35.7	31.7
Kherson	11	58	31	75	95	37	60	29.0	27.1
Lancer	--	--	55	103	110	44	78	35.4	33.4
Lang	39	84	62	97	115	55	82	31.7	30.6
Larry	--	--	--	--	120	61	--	34.0	----
Lyon	24	72	46	107	---	--	--	----	----
Ogle	--	--	--	110	122	54	--	30.3	----
Otee	25	70	53	95	112	48	77	35.3	33.9
Russell	17	66	42	101	---	--	--	----	----
Stout	31	73	60	90	106	36	73	34.6	31.6
Trio	23	61	51	92	---	--	--	----	----
Wright	29	75	51	95	---	--	--	----	----
Exp. 0-9	--	--	--	---	104	41	--	34.6	----
Exp. 0-10	--	--	--	---	74	--	--	----	----
Dif. sig.	6.0	N.S.	9.9	7.7	N.S.	10.7	8.7	----	1.5

Location of tests (counties): 1976-1980 Dixon and Cedar; 1981 Cedar.

Table 7. West District nonirrigated oat variety test. Cheyenne County. 1981.

Variety	Flower June	Height inches	Lodging %	Yield bu/A	Weight lb/bu
Bates	14	35	9	109	35.4
Benson	22	38	35	83	32.3
Burnett	16	41	33	87	32.4
Garry	22	41	20	94	30.9
Kelsey	20	39	15	88	33.0
Kherson	20	40	45	72	28.6
Lancer	19	36	18	91	33.9
Lang	14	35	9	105	33.2
Larry	15	33	9	97	34.4
Ogle	17	35	9	110	30.9
Otee	16	36	20	87	33.1
Stout	15	33	11	80	33.5
Exp. 0-9	16	39	25	83	34.2
Dif. req. sig.	1.0	2.2	12.1	21.3	1.9

Table 8. West District nonirrigated oat variety tests. 1975-1981.

Variety	Grain yield bu/A								Weight lb/bu
	1975	1976	1977	1978	1979	1980	1981	1978-81 average	1978-81 average
Bates	64	48	74	42	82	40	109	68	32.2
Benson	--	--	79	39	92	35	83	62	29.7
Burnett	60	50	70	33	99	37	87	64	29.8
Garry	--	--	76	31	102	33	94	65	29.8
Kelsey	66	42	80	29	104	38	88	65	29.5
Kherson	57	43	63	25	92	27	72	54	26.2
Lancer	--	--	--	29	93	38	91	63	30.7
Lang	75	53	75	59	94	48	105	77	30.4
Larry	--	--	--	--	---	44	97	--	----
Lyon	--	35	78	42	100	--	---	--	----
Ogle	--	--	--	--	105	42	110	--	----
Otee	58	37	63	43	84	37	87	63	31.4
Russell	66	36	88	38	85	36	---	--	----
Stout	58	52	69	51	85	44	80	65	31.0
Trio	58	41	62	39	85	--	---	--	----
Wright	66	49	70	46	96	--	---	--	----
Exp. 0-9	--	--	--	--	---	37	83	--	----
Sig. for sig.	N.S.	15.5	9.0	18.6	12.7	N.S.	21.3	N.S.	1.9

Location of tests (counties): 1975 Cheyenne and Box Butte; 1976 Cheyenne and Sheridan; 1977-1981 Cheyenne.

Table 9. West District irrigated oat variety test. Box Butte County. 1981.

Variety	Flower June	Height inches	Lodging %	Yield bu/A	Weight lb/bu
Bates	15	32	0	102	35.8
Benson	22	38	0	109	35.8
Burnett	15	39	0	113	33.8
Colorado 37	22	43	33	95	31.8
Garry	22	42	0	127	33.3
Kelsey	20	39	0	127	35.3
Kherson	19	41	0	112	32.0
Lancer	19	37	0	116	34.5
Lang	15	35	0	120	34.4
Larry	16	35	0	130	33.8
Lodi	22	43	0	108	32.8
Ogle	16	36	0	129	34.0
Otee	15	36	0	92	35.0
Russell	22	40	0	118	34.3
Exp. 0-9	16	35	0	99	35.0
Dif. req. sig.	1.7	2.3	--	20.2	2.1

Table 10. West District irrigated oat variety tests. 1975-1981.

Variety	Grain yield bu/A								Weight lb/bu
	1975	1976	1977	1978	1979	1980	1981	1978-81 average	1978-81 average
Bates	77	91	104	65	70	81	102	80	34.0
Benson	--	---	98	64	66	84	109	81	33.3
Burnett	80	97	102	60	66	77	113	79	32.6
Colorado 37	81	108	102	70	70	90	95	81	32.2
Garry	80	99	122	71	82	78	127	90	32.2
Kelsey	95	104	106	71	82	96	127	94	33.7
Kherson	84	98	98	56	60	74	112	76	29.9
Lancer	--	---	---	55	79	70	116	80	32.9
Lang	71	76	105	63	67	70	120	80	31.9
Larry	--	---	---	--	--	73	130	--	----
Lodi	82	93	109	65	--	69	108	--	----
Lyon	--	98	113	56	80	--	---	--	----
Ogle	--	---	---	--	94	93	129	--	----
Otee	64	87	90	54	71	75	92	73	33.7
Russell	85	100	114	68	83	89	118	90	32.9
Stout	72	93	89	48	67	58	---	--	----
Trio	63	89	97	53	58	--	---	--	----
Wright	81	93	89	57	70	--	---	--	----
Exp. 0-9	--	---	---	--	--	67	99	--	----
Dif. req. for sig.	9.5	N.S.	N.S.	13.0	15.7	16.7	20.2	10.2	1.2

Location of tests (counties): 1975-1976 Scotts Bluff; 1977 Scotts Bluff and Box Butte; 1978 Scotts Bluff and Dawes; 1979-1980 Scotts Bluff and Box Butte; 1981 Box Butte.

Table 11. Southeast District barley variety tests. 1972-1980. No 1981 data.

Variety	Grain yield bu/A										Weight lb/bu
	1972	1973	1974	1975	1976	1977	1978	1979	1980	1977-80 average	1977-80 average
Beacon	30	32	25	26	30	40	32	10	--	--	----
Bowers	--	--	--	--	--	46	42	14	57	40	47.3
Custer	35	42	26	29	46	43	38	12	53	37	46.6
Klages	--	--	--	--	--	24	--	--	--	--	----
Manker	--	--	--	34	27	31	26	--	--	--	----
Morex	--	--	--	--	--	44	38	11	45	35	47.8
Nordic	35	48	19	44	27	48	28	11	--	--	----
Primus II	35	37	26	25	33	41	--	--	--	--	----
Steptoe	--	50	17	23	49	40	33	16	50	35	44.0
Exp. B-10	--	--	--	--	--	--	--	15	39	--	----
Dif. sig.	4.4	8.6	5.9	6.1	9.9	9.5	8.8	2.9	N.S.	N.S.	1.0

Tests on Mead Field Laboratory, Saunders County.

Table 12. Northeast District barley variety tests. 1972-1980. No 1981 data.

Variety	Grain yield bu/A										Weight lb/bu
	1972	1973	1974	1975	1976	1977	1978	1979	1980	1977-80 average	1977-80 average
Beacon	48	71	60	58	13	39	42	62	--	--	----
Bowers	--	--	--	--	--	53	52	81	85	68	48.6
Custer	54	79	69	49	16	50	56	78	75	65	48.5
Lud	--	--	--	--	--	47	40	73	--	--	----
Manker	--	--	--	57	13	29	41	--	--	--	----
Morex	--	--	--	--	--	50	48	72	78	62	49.6
Nordic	47	69	62	52	11	42	44	75	--	--	----
Primus II	53	70	60	59	12	42	--	--	--	--	----
Steptoe	--	84	56	44	10	52	48	83	68	63	45.1
Summit	--	--	--	--	--	--	--	68	--	--	----
Exp. B-10	--	--	--	--	--	--	--	77	79	--	----
Dif. req. sig.	5.8	6.0	9.1	8.0	N.S.	8.2	4.7	7.3	N.S.	N.S.	1.3

Tests on Northeast Station, Dixon County.

Table 13. West District nonirrigated barley variety tests. 1976-1981.

Variety	Grain yield bu/A							1981			Weight lb/bu	
	1976	1977	1978	1979	1980	1981	1977-81 average	Flower June	Height inches	Lodging %	1981	1977-81 average
Beacon	20	45	16	56	--	--	--	--	--	--	----	----
Bowers	--	58	19	70	27	38	42	20	27	10	43.2	42.2
Custer	29	58	28	67	41	66	52	19	29	4	44.2	42.3
Morex	--	46	16	64	25	44	39	22	27	5	43.4	43.0
Nordic	22	50	13	62	--	--	--	--	--	--	----	----
Onda	--	--	--	--	--	42	--	14	26	5	39.5	----
Steptoe	32	78	25	73	35	56	53	20	25	3	42.0	40.7
Exp. B-10	--	--	--	74	26	45	--	22	22	4	42.8	----
Exp. HV #9	--	--	--	--	--	37	--	16	21	6	42.2	----
Exp. HV #14	--	--	--	--	--	28	--	20	23	6	47.9	----
Dif. req. sig.	5.1	10.5	5.5	11.3	6.0	11.4	9.3	1.9	1.7	2.9	1.2	1.0

Location of tests (counties): 1976 Cheyenne and Sheridan; 1977-1981 Cheyenne.

Table 14. West District irrigated barley variety tests. 1976-1981.

Variety	Grain yield bu/A							1981			Weight lb/bu	
	1976	1977	1978	1979	1980	1981	1977-81 average	Flower June	Height inches	Lodging %	1981	1977-81 average
Beacon	63	72	36	48	--	---	--	--	--	--	----	----
Bowers	--	78	37	49	65	102	66	16	34	0	42.5	44.5
Custer	87	67	34	47	60	83	58	16	38	0	40.5	42.3
Klages	--	64	41	--	--	---	--	--	--	--	----	----
Manker	85	61	29	--	--	---	--	--	--	--	----	----
Morex	--	66	27	41	61	95	58	12	36	0	43.8	44.1
Nordic	91	64	34	37	--	---	--	--	--	--	----	----
Onda	--	--	--	--	--	89	--	9	31	20	39.8	----
Steptoe	83	84	45	70	76	124	80	15	36	0	45.0	43.6
Exp. B-10	--	--	--	51	64	99	--	11	37	0	42.3	----
Exp. HV #9	--	--	--	--	--	100	--	9	28	10	40.8	----
Exp. HV #14	--	--	--	--	--	73	--	11	30	0	45.5	----
Dif. req. sig.	17.0	N.S.	N.S.	5.6	N.S.	16.0	7.5	0.8	11.9	--	3.0	1.6

Location of tests (counties): 1976 Scotts Bluff; 1977 Scotts Bluff and Box Butte; 1978 Scotts Bluff and Dawes 1979-1980 Scotts Bluff and Box Butte; 1981 Box Butte.

Table 15. Southeast District spring wheat variety tests. 1975-1981.

Variety	Grain yield bu/A							1981	
	1975	1976	1977	1978	1979	1980	1981	Flower June	Weight lb/bu
Butte	--	--	31	21	17	23	13	2	53.8
Eureka	--	--	--	17	16	23	12	5	49.7
Fielder (white)	--	--	26	16	13	23	8	5	49.1
James	--	--	--	--	--	23	13	3	50.8
Len	--	--	--	--	18	23	14	7	50.7
Marquis	16	9	17	6	13	16	3	10	----
Olaf	21	21	28	16	16	20	12	7	50.9
Rugby (durum)	--	--	38	23	20	19	11	7	51.7
Waldron	25	24	26	19	13	25	12	5	50.1
Exp. SW-9	--	--	--	--	--	27	6	9	45.5
Dif. req. sig.	3.1	9.4	5.2	5.3	3.0	5.6	5.6	1.4	----

Tests on Mead Field Laboratory, Saunders County.

Table 16. Northeast District spring wheat variety tests. 1975-1980. No 1981 data.

Variety	Grain yield bu/A						1980		
	1975	1976	1977	1978	1979	1980	Flower June	Height inches	Weight lb/bu
Butte	--	--	33	18	41	40	10	32	60.2
Eureka	--	--	--	--	47	38	13	34	57.8
Fielder (white)	--	--	31	12	35	38	12	32	58.6
James	--	--	--	--	--	44	10	31	59.3
Len	--	--	--	--	45	36	13	27	58.2
Marquis	9	8	19	9	30	26	14	38	58.0
Olaf	23	16	39	16	45	35	13	28	58.1
Rugby (durum)	--	--	31	20	38	37	14	36	59.0
Waldron	27	15	36	--	44	42	12	34	58.7
Dif. req. sig.	--	3.3	4.8	2.1	6.5	4.8	0.5	1.2	----

Tests on Northeast Station, Dixon County.

Table 17. West District nonirrigated spring wheat variety tests. 1975-1981.

Variety	Grain yield bu/A							1981			
	1975	1976	1977	1978	1979	1980	1981	Flower June	Height inches	Lodging %	Weight lb/bu
Butte	--	--	36	22	46	17	22	21	32	18	58.0
Eureka	--	--	--	--	41	16	6	25	29	45	50.5
Fielder (white)	--	37	39	21	44	18	18	23	27	23	52.9
James	--	--	--	--	--	16	28	20	32	13	55.2
Len	--	--	--	--	47	16	16	23	28	20	54.3
Marquis	27	16	21	16	39	14	9	26	33	20	51.2
Olaf	41	27	37	21	43	18	10	24	25	33	54.5
Rugby (durum)	--	--	36	--	47	17	7	24	30	16	53.9
Waldron	37	27	30	--	--	15	11	22	31	33	54.1
Exp. SW-9	--	--	--	--	--	--	11	25	25	40	53.4
Dif. sig.	3.7	4.5	3.9	6.0	4.3	N.S.	9.0	2.0	3.3	13.2	1.0

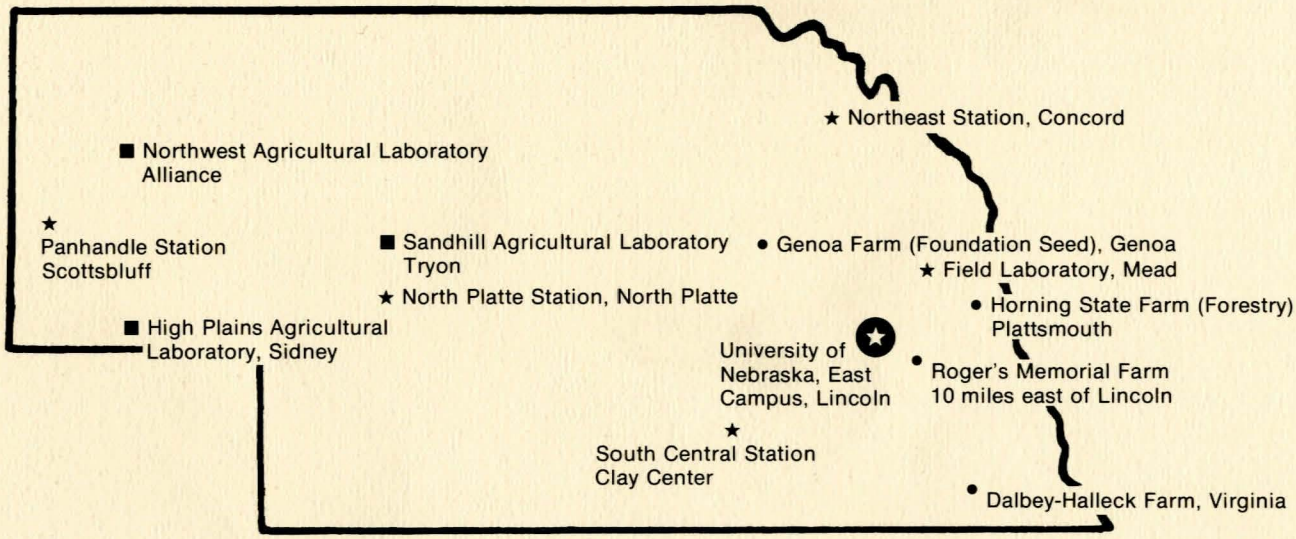
Tests on High plains Agricultural Laboratory, Cheyenne County.

Table 18. West District irrigated spring wheat variety tests. 1975-1981.

Variety	Grain yield bu/A							1981		
	1975	1976	1977	1978	1979	1980	1981	Flower June	Height inches	Weight lb/bu
Butte	--	--	49	34	46	41	60	15	38	55.0
Eureka	--	--	--	--	38	39	54	18	41	54.0
Fielder (white)	--	51	57	38	55	41	66	19	31	53.0
James	--	--	--	--	--	42	63	16	36	52.5
Len	--	--	--	--	47	37	64	21	34	47.0
Marquis	36	37	39	23	36	33	44	21	43	53.5
Olaf	47	46	59	31	45	43	55	19	33	52.0
Rugby (durum)	--	--	55	--	48	44	59	18	40	59.0
Waldron	42	43	45	--	47	39	56	17	40	57.0
Exp. SW-9	--	--	--	--	--	--	61	22	29	47.5
Dif. sig.	N.S.	2.8	N.S.	N.S.	13.3	6.8	11.9	1.2	2.3	N.S.

Location of tests (counties): 1975 Scotts Bluff and Box Butte; 1976 Scotts Bluff and Morrill; 1977 Scotts Bluff and Box Butte; 1978 Scotts Bluff and Dawes; 1979-80 Scotts Bluff and Box Butte; 1981 Box Butte.

Agricultural Research for All of Nebraska



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The Cooperative Extension Service transmits data to users through District and County Extension Offices. Area and County Extension Agents are available to provide additional interpretation and more specific recommendations.

Nebraska is a large state and has great variation due to topography and the continental type of climate. The elevation ranges from 1,000 feet to near a mile high in the northwest portion of the state, rainfall varies from 14 to 40 inches per year, and the soil types vary from sands to heavy clays. The research program thus is broad in subject matter and geography, resulting in the need for various stations and satellite locations.

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